

Appln. No. 09/746,713
Amendment dated March 22, 2005
Reply to Office Action of September 23, 2004

Amendments to the Claims:

Please amend claims 16-19 and add new claim 20. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-15 (Cancelled).

Claim 16 (Currently Amended). A laser scanning microscope comprising:

a pulse laser unit configured to oscillate a pulse laser beam to excite a sample;

5 a scanning mirror configured to scan the pulse laser beam;
a photodetector configured to detect light from the sample and output an analog detection signal;

a sampling control circuit which receives a pulse oscillation signal from the pulse laser unit and generates a
10 trigger signal delayed by a predetermined time;

a pulse generator which receives the trigger signal and generates sampling pulse signals for each trigger signal for a predetermined output period in which a fluorescent signal is generated;

Appln. No. 09/746,713
Amendment dated March 22, 2005
Reply to Office Action of September 23, 2004

15 an A/D converter which converts the analog detection signal from the photodetector to digital data in synchronism with each of the sampling pulse signals; and

a memory which stores the digital data provided by the A/D converter.

Claim 17 (Currently Amended). The laser scanning microscope according to claim 16, wherein digital integration of [[a]] the fluorescent signal is performed using the digital data stored in the memory.

Claim 18 (Currently Amended). The laser scanning microscope according to claim 16, wherein analysis is performed to detect a peak of [[a]] the fluorescent signal using the digital data stored in the memory.

Claim 19 (Currently Amended). The laser scanning microscope according to claim 16, wherein analysis is performed to determine a time constant of [[a]] the fluorescent signal using the digital data stored in the memory.

Appln. No. 09/746,713
Amendment dated March 22, 2005
Reply to Office Action of September 23, 2004

Claim 20 (New). The laser scanning microscope according to claim 16, wherein the predetermined output is less than 10 nsec.